INSTALLATION MANUAL

Single Station Thermal Printer

Model: BTP-R880NP

- This printer has been manufactured and branded for ORIENT Technologies B.V. by Shandong New Beiyang Information Technology Co., Ltd.
- Design and specifications are subject to change without notice. Ask your supplier for technical specifications before purchase and/or use.
- Whenever in doubt about safety issues that might arise from using this product, please contact the supplier immediately for assistance.

Declaration

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Symbol Conventions

⚠ Warning Items shall be strictly followed to avoid damages to body and equipment.
⚠ Caution Items with important information and prompts for operating the printer.

Certifications

The control system of SNBC has been approved of the following certification:

ISO9001 quality control system certification
ISO14001 environmental control system certification
OHSAS18001 profession health safety control system certification
IECQ QC080000 hazardous material process control system certification

BTP-R880NP has been approved of the following certification:

CE CB Scheme FC SGS-TÜV SAARLAND GS c UL us LISTED I.T.E E236680 03GG ENERGY STAR DNV RoHS Green Product

WEEE directive 2002/96/EC

ORIENT Technologies bv is complying with all aspects of the European Union’s WEEE directive 2002/96/EC. All the customers and end-users can send the products that have reached the end of their lifes and are to be recycled, to ORIENT Technologies bv. ORIENT Technologies bv will take care of the recycling of these products in an environmentally responsible manner in accordance with WEEE directive.

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General Safety Information

Before installing and using the printer, please read the following items carefully.

Safety Labels

Don't touch the cutter and tear bar of printer.

The print head is a thermal element and it is at high temperature during printing or just after operation, therefore please do not touch it and its peripherals for safety reasons.

The thermal head is an ESD-sensitive device. To prevent damage, do not touch either its printing part or connecting parts.

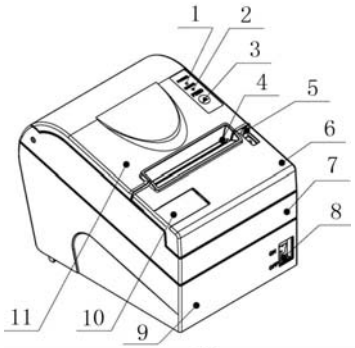
Caution

- Install the printer on a flat and stable place.
- Reserve adequate space around the printer so that convenient operation and maintenance can be performed.
- Keep the printer away from water source.
- Do not use or store the printer in a place exposed to heat of fire, moisture, serious pollution and direct sunlight.
- Do not place the printer on a place exposed to vibration or impact.
- No dew condensation is allowed to the printer. In case of such condensation, do not turn on the power until it has completely gone away.
- Connect the DC adapter to an appropriate grounding outlet. Avoid sharing a single electrical with large power motors and other devices that may cause the fluctuation in voltage.
- Disconnect the DC adapter when the printer is not used for a long time.
- Don't spill water or other materials on the printer. If this happens, turn off the power immediately.
- Do not allow the printer to start printing when there is no recording paper installed, otherwise the print head and platen roller will be damaged.
- To ensure quality print and normal lifetime, use recommended or good quality paper.
- Shut down the printer when connecting or disconnecting interfaces connectors to avoid damage to the control board.
- Set the print darkness to a lower grade as long as the print quality is acceptable. This will help to keep the print head durable.
- The printer should only be disassembled or repaired by a technician, who is certified by the manufacturer.
- Keep this manual safe and at hand for ready reference.

1 Introduction of BTP-R880NP

- BTP-R880NP is a high performance thermal printer, which can be widely used for real-time printing application, such as POS system, restaurant system, ATM, etc.
- BTP-R880NP can be connected with other devices via parallel interface, serial interface, USB, Ethernet or WIFI and is available for WINDOWS 2000/XP/Server 2003/VISTA/WIN7/ Server2008, Linux and MAC.

2 Parts Identifications



1— Power LED

2— Error LED

3— Feed button

4— Tear bar

5— Top cover latch

6— Cutter cover

7— Middle cover

8— Power switch

9— Top cover

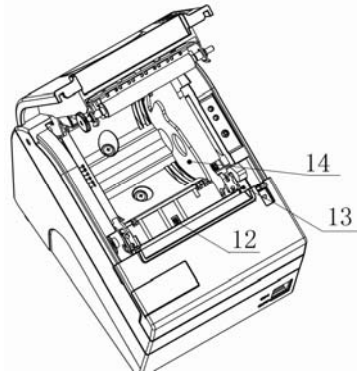
10— LOGO plate

11— Top cover

12— Paper sensor

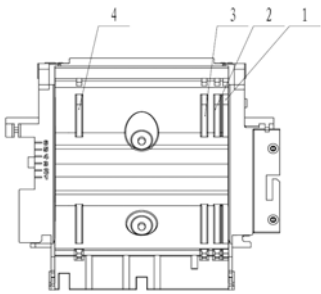
13— Top-cover-open sensor

The sensor detects whether the top cover is closed or not.



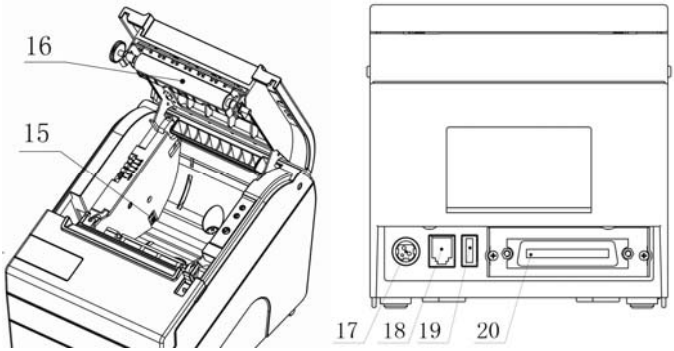
14— Paper guide

The printer contains two paper guides. One is installed in the printer on the right hand side; the second one is added in the box of the printer.-There are 4 long slots at the base of paper holder, Putting the paper guides in different slots will allow the printer to use different paper widths listed as follows:



Without any paper guide: 82.5±0.5mm.
A paper guide in the slot 1: 80±0.5mm
A paper guide in the slot 2: 76±0.5mm
A paper guide in the slot 3: 69.5±0.5mm
Paper guides in the slot 3 and 4: 57 ±0.5mm

⚠ Caution: The paper guides are indispensable parts of the printer and should be kept safely with the printer.



15— Paper-near-end sensor

For continuous paper, this sensor is used to detect whether the paper roll has run out or near the end of the roll.

16— Printer platen

17— Power connector

18— Cash drawer connector

19— USB connector

20— Interface connector

3 Setting up the Printer

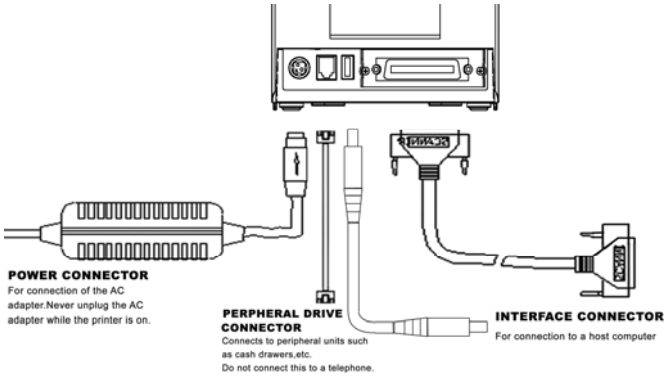
3.1 Unpacking

Check whether all items, which are listed on the packing list, are present and in a good condition. If any item is damaged or missing, please contact your dealer.

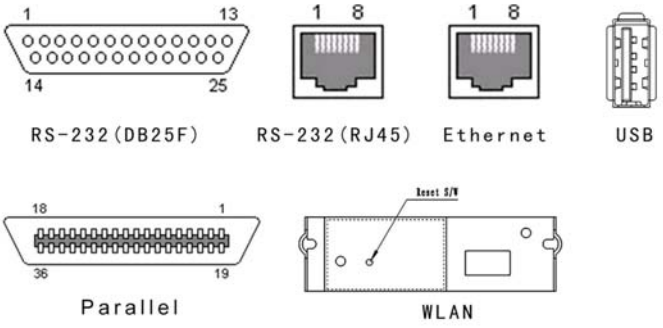
3.2Connecting the Cables

You can connect the cables that are required for printing, to the printer. They all connect to the connector panel at the back of the printer, which is shown below.

Before connecting any of the cables, make sure that both the printer and the computer are turned off.


POWER CONNECTOR
For connection of the AC adapter.Never unplug the AC adapter while the printer is on.
PERPHERAL DRIVE CONNECTOR
Connects to peripheral units such as cash drawers,etc.
Do not connect this to a telephone.
INTERFACE CONNECTOR
For connection to a host computer

3.2.1 Interface Connector



RS-232 serial interface

Pin	Signal name	Signal direction	Function
1	FG	—	Frame ground
2	TXD	Output	Transmit data
3	RXD	Input	Receive data
4	RTS	Output	Same as DTR signal
6	DSR	Input	This signal indicates whether the host computer can receive data. SPACE indicates that the host computer can receive data, and MARK indicates that the host computer cannot receive data. When DTR/DSR control is selected, the printer

			transmits data after confirming this signal (except when transmitting data by DLE EOT, and GS a). When XON/XOFF control is selected, the printer does not check this signal.
7	SG	—	Signal ground
20	DTR	Output	1) When DTR/DSR control is selected, this signal indicates whether the printer is busy. SPACE indicates that the printer is ready to receive data, and MARK indicates that the printer is busy. 2) When XON/XOFF control is selected: The signal acts the same as when DTR/DSR control is selected.

Parallel interface

Pin	Source	Function	Pin	Source	Function
1	H	NStrobe	19		Signal Ground (nStrobe)
2	H	Data 0 (Least Significant Bit)	20		Signal Ground (Data 1)
3	H	Data 1	21		Signal Ground (Data 2)
4	H	Data 2	22		Signal Ground (Data 3)
5	H	Data 3	23		Signal Ground (Data 4)
6	H	Data 4	24		Signal Ground (Data 5)
7	H	Data 5	25		Signal Ground (Data 6)
8	H	Data 6	26		Signal Ground (Data 7)
9	H	Data 7 (Most Significant Bit)	27		Signal Ground (Data 8)
10	P	NAck	28		Signal Ground (PError, Select, and nAck)
11	P	Busy	29		Signal Ground (Busy and nFault)
12	P	Perror	30		Signal Ground (nAutoFd, nSelctIn, and nInit)
13	P	Select	31	H	NInit
14	H	nAutoFd	32	P	NFault
15		Not defined	33		Not defined
16		Logic Gnd	34		Not defined
17		Chassis Gnd	35		Not defined
18	P	Peripheral Logic High	36	H	nSelectIn

Ethernet

Pin Number	Signal Name	Function
1	TX+	Output Data+
2	TX-	Output Data -
3	RX+	Input Data+
4	NC	
5	NC	
6	RX-	Input Data -
7	NC	
8	NC	

USB interface

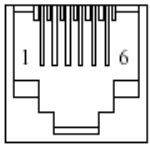
Pin Number	Signal Name	Function
1	VBUS	+5V
2	DATA-	Printer data transmit line minus
3	DATA+	Printer data transmit line plus
4	GND	Ground

3.2.2 Cash Drawer Connector

On command of the host the printer can generate pulses via the connector for the connected cash drawer to open (also known as cash-drawer-kick-out). The host can retrieve the status of the drawer by using the DLE EOT, GS a, or GS r commands.

1) Pin assignments:

Pin Number	Signal Name	Function
1	Frame GND	--
2	Drawer kick-out drive signal 1	Output Data
3	Drawer open/close signal	Input Data
4	+24 V	--
5	Drawer kick-out drive signal 2	Output Data
6	Signal GND	--



2) Connector model:

Printer side: DuoYuan DY126-6P6C or equivalent

User side: 6-position 6-contact (RJ11 telephone jack)

3) Drawer kick-out drive signal

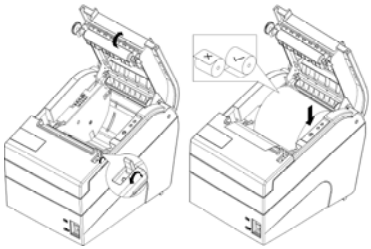
Output signal: Output voltage: Approximately 24V

Output current: 1A or less

3.3Loading the Paper Roll

Note: Be sure to use paper rolls that meet the specifications. Do not use paper rolls that have the paper glued to the core because the printer cannot detect the paper end correctly.

1) Turn off the printer.
2) Open the printer top cover, as in the following figure.
3) Put the paper roll into the paper holder. See figure below.

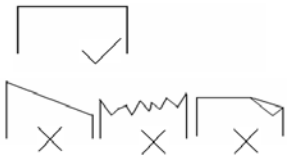


Note: Recommend paper

Paper type	Manufactory
TF50KS-E2C,TF50KS-E	Nippon Paper Industries Co., Ltd
F70NA	FUJI PHOTO FILM Co., Ltd
F240AC/F220-VP,FV230A1,PA220AG,HP220A	Mitsubishi Paper Mill Co., Ltd.
PD150R,PD160R	OJI Paper Co.,Ltd.
F5041，F5051，P5045，P5055	Mitsubishi HitTec Paper Flensburg GmbH
KF50，KP440	Kanzan Spezialpapiere GmbH
KT55F20，KT58F20，KT55HS	Papier-fabrik August Koehler AG
P300，P350，P530	Kanzaki Specialty Paper

Caution:

- Adjust the paper width by adjusting the paper guides according to the paper type used.
- Make sure that the paper roll is cut according to the requirement below before loading:



- Make sure that the heat sensitive side of paper faces the print head and the rolling direction of paper meets the requirements. (See drawings under the top cover). Note: If needed the heat sensitive side of the paper can be found by scratching both sides of the paper with a hard object. The scratches on heat

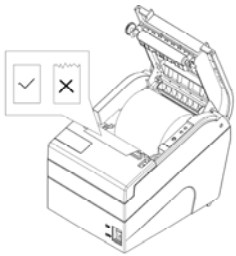
sensitive side will turn black.

- The paper on the roll should be tightly wrapped when loading the roll in the printer.
- The paper roll should be loaded straight in the printer and not slanted. In this way the roll will not be obstructed from rolling during printing.

4) Pull the end of the paper roll out up to the end of the top cover, and close the printer cover completely See figure below.

Caution:

- The top cover must be closed completely, failure to
- do so will influence the normal operation of the printer.



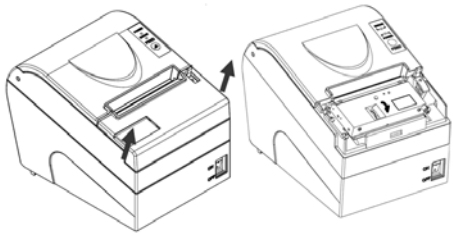
5) Tear off the surplus portion of the paper by using the tear bar.

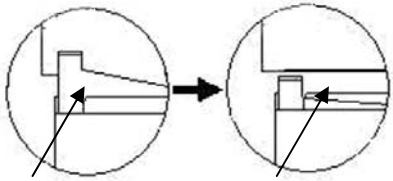
Caution:

When encountering a cutter malfunction due to a paper jam or due to an unexpected power loss, do not open the top cover of the printer by force since the moving blade of the cutter might have blocked the cover. Failing to do so might damage the moving blade of the cutter. In case the moving blade is blocking the cover of the printer, follow the instructions below to solve the problem.

1) Switch the printer off and on again. The moving blade might be able to move to its home-position, which enables opening of the top cover, If this does not occur and the top cover is still stuck, than continue with the next steps.
2) Switch off the printer and disconnect the power adapter from the printer.
3) Remove the cutter cover as shown in figure below, which will expose a small wheel-knob.

If the auto cutter works in full cut mode, turn the wheel-knob counter-clockwise as shown in figure below (turn it inversely when partial cut) while observing its movement through the paper exit, do not stop turning until the moving blade is completely separated from the stationary blade. Then open the top cover to clear paper jam or such the like.





Moving blade Abnormal position **Moving blade Normal position**

Caution 1: Usually, at the beginning of the knob being turned, the moving blade seems to move very slowly. However, it's moving. Therefore, keep turning while carefully observing its movement.

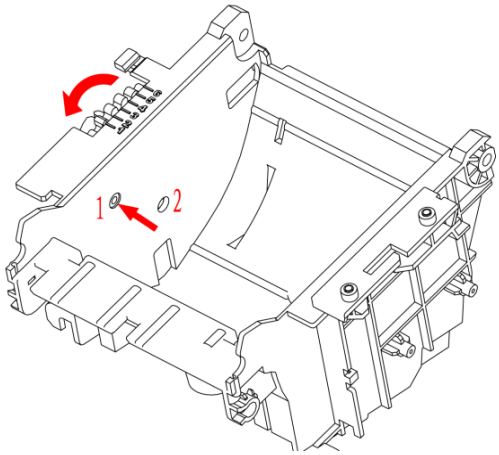
Caution 2: In case of being unable to turn the knob counter-clockwise as shown in figure above, turn it clockwise.

3.4 Paper near end adjustment

3.4.1 Paper near end position adjustment

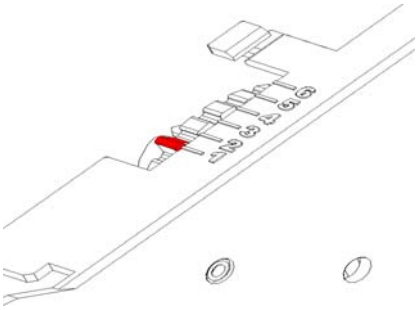
BTP-R880NP supports printing when the printer is in a horizontal (e.g. placed on a table) or in a vertical position (e.g. mounted on a wall). User can detect the remained paper in the horizontal and vertical location by adjusting the paper near end sensor. The default printer setting is horizontal printing and paper near end sensor is at the bottom of the paper house.

The adjustment of paper near end sensor position from horizontal to vertical: Press the plastic shrapnel in position 1 along the direction of the arrow, while rotating the thumbwheel in the direction as shown. The paper near end sensor will start to rotate and when the plastic shrapnel is in position 2, the changing from horizontal to vertical is completed.



3.4.2 Remaining paper amount adjustment of Paper near end sensor

Remaining paper amount can be adjusted by adjusting the position of paper near end sensor. The paper near end sensor has six levels and the red mark (actual color on printer is white) shows the current level and it can be adjusted to different position by moving the click wheel.



4 Switch, Button and LED

4.1 Power Switch

The power button turns the power on or off.

Note: Turn the power on only after connecting the power supply.

4.2 Feed Button

- Feed paper function

Printer will feed paper when the FEED BUTTON is pressed. The printer will feed

as long as the button is pressed.

- Print self-test page function

  When the FEED button is pressed while the printer is turned on, the printer will print out a self-test page. The page gives information about the printer and the settings.

  Before starting the self-test, make sure that a paper roll has been loaded and that the top cover is closed.

- Configuration setting function

  Pressing down the FEED button while turning on the power, will have the printer print the self-test page as described above.

  The printer will pause after cutting paper while the ERROR LED flashes. When pressing the FEED button again, the printer will enter into the configuration setting mode.

- Entering the hexadecimal dump mode function

  This function prints the data that is transmitted from the host computer in hexadecimal numbers and in its corresponding alphanumerical characters.

  < Print sample in Hexadecimal Dump mode >

```
Hexadecimal Dump
To terminate hexadecimal dump,
press FEED button three times.



1B 21 00 1B 26 02 40 40 1B 69        . ! . . & . @@ . i
1B 25 01 1B 63 34 00 1B 30 31        . % . . c 4 . . 0 1
41 42 43 44 45 46 47 48 49 4A        A B C D E F G H I J

                  *** completed ***
```

In order to have this information printed, open the cover and turn the power on while pressing the FEED button for about two seconds. Also the escape code GS (A) can be sent from the host which will print the hexadecimal dump. When closing the cover the printer will first print the text "Hexadecimal Dump To terminate …..". From this point on, all data received by the printer will be printed in hexadecimal numbers and in its corresponding characters.

NOTE:

(1) Non-printable characters will be printed as ".".

(2) In hexadecimal dump mode, all commands other than DLE EOT, DLE ENQ, and DLE DC4 are not executed.

(3) Insufficient print data to fill the last line can be printed by pressing the FEED button.

- Ending hexadecimal dumping function

  Hexadecimal dump mode can be ended by turning off the power, or by pressing the FEED button three times.

4.3 LED and Buzzers

4.3.1 LED

LED	Status	Description
Power Indicator (Green) (POWER)	On	Printer is powered on
	Off	Printer is powered off
Error Indicator (Red) (ERROR)	Off	Printer is in normal status
	Flash	Printer is in error status or Paper near end

4.3.2 Description of LED and Error Status

Error information	ERROR LED	Buzzer
Print head is overheating	Six times	Six times
Input voltage is abnormal	Five times	Five times
Cutter Error	Four times	Four times
Cover Is Open	Three times	Three times
Paper End	Twice	Twice
Paper near end	Flashing slowly	No sound
Finding mark error or verify failed	Flashing slowly	No sound

Caution:

The temperature of the print-head is detected by means of a thermistor sensor. If the temperature of the print-head becomes higher than 65℃, the protection circuit of the printer will force the printer to stop printing.

5 Specifications

5.1 General Specifications

1) Printing method: Direct line thermal printing
2) Dot density: 203 DPI(H) ×180 DPI(V)
3) Printing direction: Unidirectional with friction feed
4) Printing width (max): 80mm {2.52 "}, 640 dot positions
5) Characters per line (default): Font A: 42
   Font B: 56
   Kanji: 21
6) Character spacing (default): Font A: 0.25 mm {0.01"} (2 dots)

Font B: 0.25 mm {0.01"} (2 dots)
Kanji: 0.125 mm {0.005"} (1 dot)
Programmable by command

7) Printing speed: 230 mm/s (Max) {9.05"/s}
54.3 LPS maximum (4.23 mm/feed)

5.2 Auto Cutter Specifications

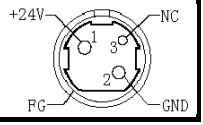
Item	Parameter	Remarks
Cutter type	Slide cutter (Guillotine type)	
Cutting time	500ms	The time that one cut takes.
Cutting interval	3s	20 times/min. (Max.)
Paper type	Thickness: 0.06 – 0.1mm	Thermal paper or paper with the same thickness
Operation voltage	24VDC	
Max. static current	1.2A	24V DC
Cutter lifetime	1, 800,000 cuts (with reference paper）	Full cut or Partial cut

5.3 Interfaces

USB is fixed on board; all others (Serial Interface(RS232), Parallel Interface(IEEE1284), Ethernet Interface, WLAN) are daughter boards.

5.4 Electric Parameters of the Power Supply

Item	Parameter
Supply voltage	24VDC±5%
Current consumption	Mean: approximately 2.0A (12.5% duty ratio) Peak: Approximately 10 A
Ripple & Noise	< 240mVp-p
Power Connector	1 --- Positive (+24V) 2 --- GND 3 --- NC.



Caution:

Please use the power adapter that is supplied with the printer or an equivalent type.

5.5 Environmental Conditions

1) Operating temperature and humidity: 5～45℃，20 ~ 80% RH
(No dew condensation)

2) Storage temperature and humidity：-40～55℃，≤93%RH (40℃)

5.6 Reliability

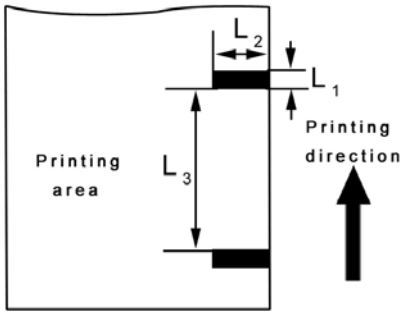
1) Life times:

Thermal head:	100,000,000 pulses, 150 km
Auto cutter:	1,800,000 cuts
2) MTBF:	360,000 hours
3) MCBF:	60,000,000 lines

5.7 Black Mark Specifications

The printer can print on thermal paper that has black marks on the reverse side of the heat sensitive side of the paper. The black marks are used for determining the top-of-form. When using paper with black marks, the printer should be configured accordingly in the Configuration setting function (see 4.2). The paper with black marks needs the meet the following specifications:

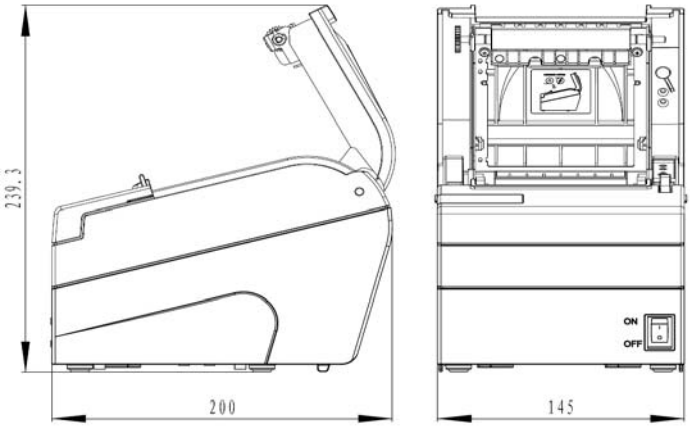
- L1 Mark height: 3mm≤L1≤13mm.
- L2 Mark length: L2≥10mm.
- L3 Mark spacing: 20mm≤L3<500mm.
- Mark location: Mark can be located in the left, middle and right (It is only suitable for 80mm paper rolls).
- Reflectivity: Mark's reflection rate should be less than 15%. The reflectivity of all other (white) area should be higher than 85%. In between the marks there should be any objects like graphics or text.



Note:

Marks will be measured when printing or feeding. If the sensor detects that the mark height is larger than that default value (default mark height is 13mm), printer will report Paper end error.

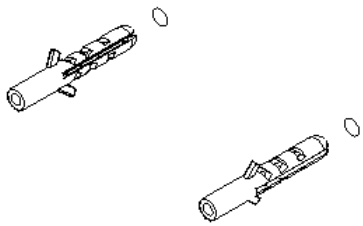
5.8 Overall Dimension



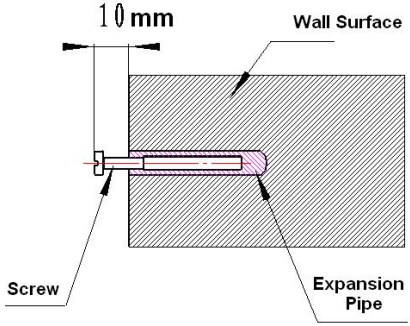
6 Wall Mounting

The printer can be mounted vertically on the wall according to below instructions:
1) Drill two holes (OD: 6mm, depth: 50mm, space of two hole: 75mm) on the wall as in below figure:

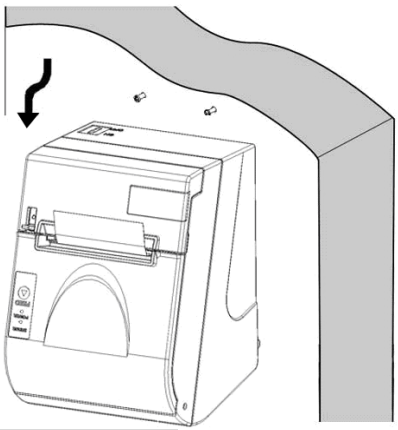
2) Insert the plastic plugs in the holes and make sure that the plugs are fully inside the holes and do not stick out.



3) Screw the two screws in the plastic plugs and keep10mm space between the screw head and the wall surface.



4) Regulate the paper near end sensor (Please refer to 3.4.1), Mount the printer as figure.



7 Configuration setting function

Parameter setting (configuring) by Feed button

1) Hold the FEED button pressed while switching the printer on.
2) After the printer has printed the configuration sheet, press and hold the FEED button to configure the printer. The main menu for the key-stroke setting procedure is printed.
3) The procedure consists of several sub-menus and step-by-step working is needed.
4) Every choice has a number, which indicates the number of times the FEED button has to be shortly pressed. After this, the choice is validated by an additional, but longer press of the FEED button (1 sec).

After all settings have been done, they are stored in the printer by stepping back through the submenus to the main menu by using the number “1” plus additional press for validation.

PARAMETER SETTING BY FEED BUTTON

MAIN MENU		CONFIGURATION							
Exit	->1								
Print Self Test	->2								
Configuration	->3	Exit Without Save	->1						
		Exit With Save	->2						
		Communication	->3	Back To Last Menu	->1				
				USB Interface	->2	USB MODE:API MODE			
						Back To Last Menu	->1		
						WinDriver Mode	->2		
						API Mode	->3		
				Serial Interface	->3	SERIAL INTERFACE			
						Back To Last Menu	->1		
						Baud Rates	->2	BAUD RATES:19200bps	
								Back To Last Menu	->1

					9600bps	->2
					19200bps	->3
					38400bps	->4
					57600bps	->5
					4800bps	->6
					2400bps	->7
					1200bps	->8
					115200bps	->9
			Parity	->3	PARITY:NONE	
					Back To Last Menu	->1
					None	->2
					Odd	->3
					Even	->4
			Data Bits	->4	DATA BITS : 8 Bits	
					Back To Last Menu	->1
					7 Bits	->2
					8 Bits	->3
			Stop Bit(s)	->5	STOP BITS: 1 Bit	
					Back To Last Menu	->1
					1 Bit	->2

						2 Bits	->3
				Handshaking	->6	HANDSHAKING:DTR/DSR	
						Back To Last Menu	->1
						DTR/DSR	->2
						XON/XOFF	->3
				Data Receive Error	->7	DATA ERROR SETTING:Ignored	
						Back To Last Menu	->1
						Ignored	->2
						Print '?'	->3
			Rx Buff Size	->4	RX BUFFER SIZE:4K Bytes		
					Back To Last Menu	->1	
					4k Bytes	->2	
					45 Bytes	->3	
					64K Bytes	->4	
	Mechanism & Hardware	->4	HARDWARE SETTINGS				
			Back To Last Menu	->1			

		Mark Sensor	->2	MARK SENSOR: Disable		
				Back To Last Menu	->1	
				Enable	->2	
				Disable	->3	
		Cutter	->3	CUTTER: Enable		
				Back To Last Menu	->1	
				Enable	->2	
				Disable	->3	
		Buzzer	->4	BUZZER: Normal Volume		
				Back To Last Menu	->1	
				Low Volume	->2	
				Normal Volume	->3	
				High Volume	->4	
				Higher Volume	->5	
				Highest Volume	->6	
				Disabled	->7	
		Power Supply	->5	POWER SUPPLY: Normal		

				Back To Last Menu	->1		
				Normal	->2		
				Low Power Mode	->3		
	Print Settings	->5	PRINT SETTINGS				
			Back To Last Menu	->1			
			Darkness Settings	->2	DARKNESS SETTING: Normal		
					Back To Last Menu	->1	
					Low	->2	
					Normal	->3	
					High	->4	
					Extra High	->5	
			Paper Roll Width	->3	PAPER ROLL WIDTH:80.0mm		
					Back To Last Menu	->1		
					57.5mm	->2		
					69.5mm	->3		
					76.5mm	->4		
					80.0mm	->5		

				82.5mm	->6		
		Left Margin	->4	LEFT MARGIN:7mm			
				Back To Last Menu	->1		
				0mm	->2		
				1mm	->3		
				3mm	->4		
				5mm	->5		
				7mm	->6		
				9mm	->7		
		Right Margin	->5	RIGHT MARGIN:9mm			
				Back To Last Menu	->1		
				0mm	->2		
				1mm	->3		
				3mm	->4		
				5mm	->5		
				7mm	->6		
				9mm	->7		
		CR Command	->6	CR COMMAND: Disable			
				Back To Last Menu	->1		

				Enable	->2		
				Disable	->3		
		Code Page	->7	CODE PAGE SETTING			
				Back To Last Menu	->1		
				Print all codepages	->2		
				Select a codepage	->3		
		Save Paper Level	->8	SAVE PAPER LEVEL			
				Back To Last Menu	->1		
				Disable	->2		
				25%	->3		
				50%	->4		
				75%	->5		
				100%	->6		
		Two-color Mode	->9	TWO-COLOR SETTINGS			
				Back To Last Menu	->1		

			Max Two-color Power	->2	Two-color Power：Normal		
					Back To Last Menu	->1	
					High	->2	
					Normal	->3	
					Low	->4	
					Disable	->5	
			Power Proportion	->3	Power Proportion：50%		
					Back To Last Menu	->1	
					60%	->2	
					55%	->3	
					50%	->4	
					45%	->5	
					40%	->6	
					35%	->7	
					30%	->8	
		Gray Scale Mode	->10	Gray Scale Mode:Mode3			
				Back To Last Menu	->1		
				Mode 0	->2		

				Mode 1	->3		
				Mode 2	->4		
				Mode 3	->5		
				Mode 4	->6		
				Mode 5	->7		
				Mode 6	->8		
				Mode 7	->9		
	Paper Sensor Settings	->6	PAPER NEAR END SETTINGS				
			Back To Last Menu	->1			
			Paper Low Alarm	->2	PAPER LOW ALARM: Enable		
					Back To Last Menu	->1	
					Enable	->2	
					Disable	->3	
			Stop Print When PAPER Low	->3	STOP PRINT WHEN PAPER LOW: Disable		
					Back To Last Menu	->1	
					Enable	->2	

					Disable	->3		
			Paper Near End Sensor	->4	PAPER NEAR END SENSER: Enabled			
					Back To Last Menu	->1		
					Enable	->2		
					Disable	->3		
	Set Default Config	->7	SET DEFAULT CONFIGURATION					
			Back To Last Menu	->1				
			Set Printer To Default Configuration	->2				
	FONTA/FONTB Settings	->8	Current Font:FONTA					
			Back To Last Menu	->1				
			Select FONTA	->2				
			Select FONTB	->3				
			Select UDFONTA	->4				
			Select	->5				

			UDFONTB					
	Beep settings	->9	Beep settings:Disabled					
			Back To Last Menu	->1				
			Enable External Herald	->2				
			Enable Internal buzzer	->3	BEEP MODE			
					Back To Last Menu	->1		
					Mode 1	->2		
					Mode 2	->3		
					Mode 3	->4		
					Mode 4	->5		
					Mode 5	->6		
			All Beep disabled	->4				
	Set Printer Mode	->10	Printer Mode:BTP-880NP Mode					
			Back To Last Menu	->1				
			BTP-880NP	->2				

				Mode				
				BTP-2002NP Mode	->3			
		Enter code,then hold Button Down at least 1 second to validate						
Cutter Test	->4							
Sensor Test	->5	Sensor Test Mode: ERROR LED state will change according to sensor state To EXIT,hold button down at least 1 second						
Print Statistics	->6	BTP-880NP STATISTICS						
		TCUT	:0					
		TLFS	:0					
		ONTIME	:0					
Calibration	->7							
E04 Configuration	->8	E04CONFIGURATION						
		Exit Without Save	->1					

		Exit With Save	->2	Saving config, please wait. Configurations have been saved, please repower the printer			
		Reset JK-E04 Config	->3				
		Print Settings	->4	IP Address: MAC Address: SUBNET Mask: GATEWAY: Print Port:			